




Montana Department of Transportation
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Memorandum

To: Distribution

From: Mark Wissinger, PE
Construction Engineer 

Date: September 14, 2005

Subject: "Buy America" and Inspection Requirements

Ensuring the quality and origin of the steel items supplied on MDT construction projects is a contractual requirement. Contractors are required to supply MDT inspectors with the appropriate manufacturer's mill tests, material test reports, and certifications that document that all manufacturing processes, including the coating of covered materials, are performed in the United States.

Recent investigation shows that some of the steel guardrail installed on MDT projects does not meet these requirements. We are unable to verify that we have received the required quality, or if it is of United States origin as required by "Buy America" regulations. Specifically, heat numbers and other information required to be on all sections of steel beam guardrail is absent from a large percentage of installed steel beam guardrail.

The heat numbers marked on the rail must correspond to the heat numbers shown on the mill tests, material test reports and certifications submitted by the contractor. Markings are to be stamped (die imprinted) into the rail supplied on MDT projects. Marking heat numbers is a requirement of subsection 705.01.1 of the Montana Standard Specifications for Road and Bridge Construction.

705.01.1 Steel Beams and Fittings. Furnish steel beam guardrail meeting AASHTO M 180 Class A, Type 1 requirements.....

Section 11 of AASHTO M 180 covers the marking requirements, which are listed below:

11. Marking

11.1 Each beam element shall be identified by the following:

- Name or Brand of Manufacturer,
- Identification Symbols or Code for Heat
- Number and Coating Lot,
- AASHTO Specification Number, and

- Class and Type.
- 11.2 Markings shall not be placed at such a location that they will be obscured after erection, or in a manner that the brand will be conspicuous to any traffic. Markings placed on the traffic face of the beam shall be placed in the valley of the center corrugation and shall be die imprinted with letters and numerals having a maximum height of 32 mm (1 1/4 in.) and a minimum height of 19 mm (3/4 in.) and shall be clearly legible after galvanization of the rail elements.
- 11.3 Marking material shall be such as to resist obliteration during storage, transportation, and erection.
- 11.4 Markings for end sections and backup plates may be on durable tags securely attached to each section or bundle except that when specified by the engineer, each individual piece shall be marked.

Prior to installation, MDT inspectors must verify that the heat numbers marked on each piece of rail correspond to the paperwork supplied by the contractor. This should be occurring for all items accepted on manufacturers certifications or outside testing. Immediately reject all materials that do not meet this requirement.

On all projects that have not had a Final Inspection, please verify that all sections of steel W-beam and box beam guardrail installed or to be installed are properly marked. Reject all steel W-beam and box beam guardrail not clearly marked as required by AASHTO M 180 (including a legible heat number). Do not process a Final Inspection request on current projects until this inspection is completed. Direct contractors to remove and replace any guardrail sections not properly marked. All costs associated with removal and replacement, including traffic control costs are at contractor expense. Track all personnel time associated with the initial inspection, and any subsequent inspections due to removal and replacement operations. Continue the assessment of contract time on projects where rail that does not meet specification requirements is discovered until the removal and replacement is completed. Document the quantities of non-specification material discovered, and provide the Construction Reviewer for your District with this information.

Instructions for the treatment of non-specification materials on those projects that have passed the Final Inspection stage will be provided in the near future.

If you have any questions please contact this office or the Construction Reviewer for your area.

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